



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/916,710	07/27/2001	Juliana Arifin	70001967-1	8241

22879 7590 11/17/2003

HEWLETT PACKARD COMPANY
P O BOX 272400, 3404 E. HARMONY ROAD
INTELLECTUAL PROPERTY ADMINISTRATION
FORT COLLINS, CO 80527-2400

EXAMINER

CHACKO DAVIS, DABORAH

ART UNIT	PAPER NUMBER
----------	--------------

1756

DATE MAILED: 11/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/916,710

Applicant(s)

ARIFIN ET AL.

Examiner

Daborah Chacko-Davis

Art Unit

1756

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6-26 and 28-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-26, and 28-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4, 6-26, 28-34, are rejected under 35 U.S.C. 102(b) as being anticipated by U. S. Patent No. 5,001,038 (Dorinski et al).

Dorinski, in col 1, lines 6-9, in col 3, lines 4-7, in col 5, lines 36-68, in col 6, lines 1-14, and lines 41-57, discloses a process for forming a patterned structure photolithographically comprising a first pattern portion and a second pattern portion (see figures 5A, 5B, and 6) on a resist coated substrate wherein a tangent to the substrate surface at a first position (first pattern) (top face) extends parallel to a first plane (or coincides), and a tangent to the substrate at a second position (second pattern) (bottom face) extends parallel to a second plane (or coincides), such that the tangents at the first plane and the second plane do not coincide, wherein the first position and the second position are connected by a sloping face (the sloping face is also exposed during exposure processes), the method comprises a first exposure to form a first pattern, wherein the image is focused in a first focal plane, and a second exposure to form a second pattern, wherein the image is focused in a second focal plane, different from the first focal plane, followed by a development of the photoresist, and the

Art Unit: 1756

formation of the conductors in the printed circuit substrate with projections (by the removal of material not covered by resist) to from the defined printed circuit conductor pattern produced by the photolithographic process. Dorinski, in col 5, lines 61-68, and in col 6, lines 1-14, and in figure 6, discloses that the first and second pattern portions overlap each other partially (claims 1, 3, 4, 8, 10-14, 19-20, 22-25, 28, and 32-34). Dorinski, in col 5, lines 36-60, and in figures 4A, and 4B, discloses that the first focal plane and the second focal plane are parallel (claims 2, 9, and 21). Dorinski, in col 5, lines 65-67, and in col 6, lines 1-6, discloses that the first and second exposures are performed subsequently (claims 6, 16, and 29). Dorinski, in col 3, lines 21-29, and in figure 2, discloses that the distance between the focal planes can be at least 150μ (claims 7, 17, and 30). Dorinski, in col 5, lines 65-67, and in col 6, lines 1-14, discloses that different masks (references 502, and 504) are used to expose the first pattern and second pattern portions and further relief portions (further pattern) (claims 18, and 31). Dorinski, in col 3, lines 4-20, and in figure 2, discloses a further focal plane (reference 212) between the first focal plane and the second focal plane (claim 26).

Response to Arguments

3. Applicant's arguments filed on 09/03/2003 have been fully considered but they are not persuasive. The 102 rejection made in the previous office action has been maintained.

Art Unit: 1756

A) Applicants argue that Dorinski does not teach that the first pattern portions and the second pattern portions on the substrate are overlapping and that the circuit images 604A and 604B are complementary images and not overlapping.

Dorinski, in figure 6, discloses a transparent substrate (transparent sheet) with pattern portions (references 604A and 604B) positioned on the transparent substrate such that the pattern portions are overlapping (partial overlapping of pattern images).

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daborah Chacko-Davis whose telephone number is (703) 306-5923. If the examiner is unavailable, you may contact her supervisor, Mark F. Huff at (703) 308-2464. FAX communications should be sent to the official Right

Application/Control Number: 09/916,710

Page 5

Art Unit: 1756

FAX number (703) 872-9306 for all responses. FAXES received after 4:00 P.M. will not be processed until the following business day.

dcd

November 13, 2003

A handwritten signature in black ink, appearing to read 'Mark F. Huff', is written over the typed name and title.

MARK F. HUFF
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700